CLAIMS

1. A method comprising:

performing Voice over Internet Protocol (VoIP) routing in a network including forcing packets carrying media in a VoIP call through managed network elements of a specific Internet Protocol (IP) address with a call signaling and selected media proxy.

2. The method of claim 1 wherein the packets originate in an originating VoIP network endpoint.

3. The method of claim 1 wherein the packets comply with RTP.

4. The method of claim 1 wherein forcing comprises receiving call signaling information from an originating VoIP network endpoint.

5. The method of claim 4 wherein forcing further comprises relaying the call signaling information through the call signaling proxy to a destination VoIP network element.

6. The method of claim 5 wherein forcing further comprises directing the originating VoIP network endpoint to use the selected media proxy.

7. The method of claim 6 wherein forcing further comprises streaming the packets to a media proxy in a selected media proxy server.

8. The method of claim 7 wherein forcing further comprises replacing an Internet Protocol address of the selected media proxy and the call signaling proxy with an address of a next hop in the network.

9. The method of claim 4 wherein replacing comprises using Network Address Translation (NAT).

10. The method of claim 4 wherein the next hop comprises a terminating VoIP network endpoint.

11. The method of claim 1 wherein the selected media proxy includes a list of static virtual Internet Protocol addresses that represent media network endpoints, gateways and other media proxies.

12. The method of claim 1 wherein the selected media proxy includes a list of dynamic virtual IP addresses that represent media network endpoints, gateways and other media proxies.

13. The method of claim 9 wherein Network Address Translation (NAT) hides the terminating VoIP network endpoint from a call originator.

14. The method of claim 9 wherein Network Address Translation (NAT) hides an originating VoIP network endpoint address from a terminating VoIP network endpoint address.

15. The method of claim 4 wherein relaying comprises selecting call signaling and media proxy servers that provide a predetermined quality of service.

16. The method of claim 1 wherein selecting comprises testing a quality of a network connection from the originating VoIP network endpoint point of presence (POP) to each of the call signaling and media proxy servers.

17. The method of claim 16 wherein testing comprises using a series of pings to determine a closest call signaling and media proxy server.

18. The method of claim 16 wherein testing comprises using trace routes to determine a closest call signaling and media proxy server.

19. A method comprising:

receiving call signaling information from an originating Voice over Internet Protocol (VoIP) endpoint;

relaying the call signaling information to a destination VoIP endpoint;

directing the originating VoIP endpoint to use a RTP media proxy; and

receiving a stream of media to the RTP media proxy from the originating VoIP endpoint.

20. The method of claim 19 wherein directing comprises:

determining an address of the destination VoIP endpoint; and

obtaining virtual addresses from the RTP media proxy.

21. The method of claim 20 wherein the virtual addresses represent media endpoints, gateways, PC clients, application servers and other media proxies.

22. A method for controlling RTP routing comprising:

sending call signaling information from an originating VoIP endpoint to a call signaling proxy;

relaying the call signaling information from the call signaling proxy to a destination VoIP endpoint; and

sending a stream of media from the originating VoIP endpoint to a RTP media proxy.

23. The method of claim 22 wherein the RTP media proxy comprises virtual IP addresses of media endpoints, media gateways and other RTP media proxies.

24. The method of claim 22 wherein the RTP media proxy comprises dynamic IP addresses of media endpoints, media gateways and other RTP media proxies.

25. The method of claim 22 wherein the RTP media proxy comprises static IP addresses of media endpoints, media gateways and other RTP media proxies.

26. The method of claim 22 further comprising replacing an IP address of the call signaling proxy and the RTP media proxy with an IP address of a next hop endpoint.

27. The method of claim 24 wherein replacing comprises network address translation (NAT).

28. A computer program stored on a computer-readable mechanism, the computer program comprising instructions that cause a computer to:

force packets carrying media in a VoIP call through managed network elements of a specific Internet Protocol (IP) address with a call signaling and selected RTP media proxy.

29. A computer program stored on a computer-readable medium, the computer program comprising instructions that cause a computer to:

receive call signaling information from an originating Voice over Internet Protocol (VoIP) endpoint;

relay the call signaling information to a destination VoIP endpoint;

direct the originating VoIP endpoint to use a RTP media proxy; and

receive a stream of media to the RTP media proxy from the originating VoIP endpoint.